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ABSTRACT

Basic principles of quality control and resource allocation are regularly practiced in the management of higher education organizations. The principle of seeking the best "fit" between institutional capabilities and available markets has gained importance as the demographics of U.S. higher education enrollments have changed to include more older students. In the past, the higher education community has responded to similar diversification of the undergraduate student body. For adults in particular, colleges have altered the method of program delivery and the method of measuring educational attainment. The literature suggests three categories of change models: rational, irrational, and individual. The model of organizational adaptation can be combined with these models to create a conceptual framework for guiding change in a liberal arts college. This framework suggests that each model is more or less relevant at particular stages of the change process. If a private liberal arts college wishes to adjust its academic delivery to induce adults to enroll, it must prepare for change and consider why change is necessary. Finally, the college needs to attend to what needs to be changed, namely the place, time, and instructional technique of its class offerings. (An 11-page list of references is appended.) (YLB)

ADJUSTING DELIVERY SYSTEMS FOR ADULT STUDENTS IN A LIBERAL ARTS COLLEGE

Comprehensive Qualifying Examination
1988 Summer Term
Higher and Adult Continuing Education
University of Michigan

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TABLE OF CONTENTS

Adjusting Delivery Systems for Adult Students In a Liberal Arts College

INTRODUCTION

The undergraduate student body in America has diversified a good deal over the past 300 years. The history of the private liberal arts college is one of adjustments to this change. As these institutions became more complex, they required better management. Relevant practices from the private sector of business and industry were borrowed and applied. Basic principles of quality control and resource allocation are now regularly practiced in the management of higher education organizations. One such principle is to seek the best "fit" between institutional capabilities and available markets. This objective requires the development of an appropriate product and the means to deliver it.

This paper presents evidence and ideas about these developments. Part I examines the diversification of the student body, the evolution of various approaches to the management of organizational change, and aspects of delivery systems for academic programming. Part II presents a report to an actual Christian, four-year, liberal arts college located in metropolitan Detroit, Michigan (henceforth called Trinity College). The report suggests how Trinity might respond to today's market given their mission and resources.

PART I

MATCHING ORGANIZATIONAL STRUCTURES AND MARKET NEEDS

WHO IS GOING TO COLLEGE AND WHY?

The average age of the American undergraduate is rising. Since 1970, there has been a 114 percent increase in post-25 year olds attending undergraduate school (Aslanian 1988). Since 1969 fewer young adults have graduated from high school (Clowes, Hinkle, and Smart 1986). A 25 percent decrease from the 1979 population of 18-21 year olds is expected by 1995 (Centra 1980, Breneman 1983). Today, one-third of the 12 million college students are over 25 (Hawes 1985). By 1990, this percentage may increase to half (Aslanian 1985). In 1980 more than 26 percent of baccalaureate degrees were awarded to individuals over the age of 24 (Brazziel 1987).

The aging of the American undergraduate can be attributed to two national trends: The aging of the general population and the increasing need for postsecondary continuing education. The College Board reports that by 1990 one-third of the population will be

between 24 and 45 year of age. This life stage includes the primary adult learning years (Smith 1988). Since 1973 the number of Americans over 34 years has doubled making this cohort the fastest growing population group (Hartnagel 1988), while the size of the 18 to 24 year old group will decline to 26 million in 1990, from 30 million in 1982; a 13 percent decrease (Ottinger 1987). Similar demographics are reported elsewhere (Brookfield 1986; Cross 1984; Aslanian 1980; Brazziel 1987; Super 1985). A comparison study of a variety of enrollment projections shows all assume an increase for the older student group and a decrease, or no-loss at best, for 18 to 21 year olds (Weiler 1980).

The increased need for postsecondary education can be traced to two forces: rapid social and technological change and a shift from a production to a service economy. Both forces necessitate, for individuals engaged in the economy, a continual renewal of competencies to keep pace with the changes and advances. Sixty-eight percent of the work force is now in the service economy (Green and Levine 1985). Individuals in these professions are highly likely to be engaged in some ongoing education (Aslanian 1980).

These workers have observed that those least likely affected by unemployment over the past decade are those with some higher education (Schutze et al. 1987). "Education beyond skill training" is needed (Cross 1984, 114). America has become a learning society (McClusky 1964) where adults have a new relationship with institutions providing education (Peterson 1983). A flexible, adaptive labor force is needed (Johnston 1986) in our society where an adult population of at least 40 million is in need of assistance with a job or career change (Aslanian 1980) or an opportunity to rectify an unfulfilled aspiration for a degree (Smart 1987, Bondeson 1977).

These needs and aspirations have changed the pattern of college attendance. Many adults who completed a two-year applied science degree or who received their postsecondary training in a hospital-based or technical school find that they now need more education. Add to this group those adults who "stopped-out" of college and/or their career to raise a family, and the increase of part-time, reentry undergraduates is understood (Smart and Pascarella 1987; Schein 1981; Keierleber and Sundal-Hansen

1985; Cooper 1988). This category of student now constitutes 23.5 percent of enrollments at less-selective private undergraduate colleges, a 16 percent increase since 1980 (College Board 1988).

The descriptor nontraditional is used most often to refer to the older student. On one hand the term is useful because it distinguishes the older undergraduate from the traditional 18 to 24 year old student. In this way the nontraditional needs of this out-of-sync college student are identified as issues needing attention. On the other hand, the term is misleading if it leads one to conclude that the presence of "nontraditional" students enrolled in American colleges and universities is a recent development. It is not. Most of the history of higher education in America reflects efforts to realign policies and resources to better meet the needs of an increasingly diverse and nontraditional student body. The pattern is traced below.

ADJUSTING FOR DIVERSITY

How has American higher education gotten to the point where the California Postsecondary Education Commission was able to identify 4,500 delivery sites within the state (Cross 1984)?

An answer might be that the higher education community, at least in California, has fully integrated Whitehead's "aim" for the university: "...to impart information, but [to do so] imaginatively" (1967, 93). Whether they liked it or not, American colleges and universities have had to do so since the history of these institutions is a lesson in adaptation to forces found in society.

Almost since the beginning, the ground upon which colleges and universities were founded seems to have moved. In spite of a desire to mirror the Italian Academies, the British rural residential colleges, and the German research universities, by the end of the nineteenth century American institutions of higher learning looked more like a fourth model.

> It was rural and urban, residential and nonresidential, collegiate and professional and research, and miscellaneous; it was religious and secular, private and public, and a combination of

> the two. Its most striking feature, however, was that it was not bound to the traditional roles, but took on whatever tasks society assigned to it: agricultural education, veterinary science, teacher training, commerce and business, architecture, librarianship, and scores of other miscellaneous activities. Nor did it become wholly professional. It undertook the old familiar tasks of teaching the young, and carried the doctrine of in loco parentis to lengths that others thought absurd, and that we now think absurd; it catered to the public interest with games and sports on a scale that conjured up images of the Roman arenas. It sponsored research of the most advanced character and built up research libraries and laboratories that were the envy of the rest of the world (Commager 1966, 81).

A review of the higher education historical literature illustrates how college and universities have responded, as described by Commanger above, to changing social, political, and demographic trends. Rudolph (1965) traces how "...as the nature of American society changed, so would the expectations which society placed upon its colleges" (59). Following the revolution the colleges responded to the expectations of democracy and its reliance on rugged individuals so that "in time going to college would come close to being an experience in indulgence rather than an experience in obligation" (60). In the context of colonial America with its Puritan emphasis on "duty" versus individual "roles" (Jordan 1978), the indulgence Rudolph speaks of was unheard of. Harvard, and its eight colonial

counterparts, was expected to produce the "rising generation" and "to serve the aristocratic elements of colonial society" (Rudolph 1965, 18).

This casting off of the previous generation's manifestations and expectations was repeated over and over. Populism played its part during the first half of the nineteenth century as colleges reformed their curriculum to be more Jacksonian. Technical and agricultural influences became relevant following the Civil War. Pragmatism and progressivism further diversified the college curriculum and organizational structure. Examples of this historical perspective (that colleges increasingly were "called upon to transmit knowledge to an unprecedented proportion of the population" (Kerr 1963, vii)) are plentiful.

Veysey (1973) identifies the influx of Jews and veterans. Mulkeen (1981) argues that the Morrill Act established the principle that a college education could encompass both liberal arts and practical training. Women, blacks, workers, the economically disadvantaged, the bourgeoisie, the isolated, the incarcerated, and the elderly all became part of the "unprecedented proportion of

the population" served by colleges and universities (see Keller 1948; Zehmer 1953; Hunsaker 1955; Carey 1961; Crane 1963; Miller 1964; Liveright and Goldman 1965; Barzun 1968; Brubacher 1970; Corson 1971; Mayhew 1972; Carnegie Commission 1973; Vermilye 1975; Hummel 1977; Harten and Boyer 1985; Taylor Rockhill and Fieldhouse 1985; Rustin 1986; and Cremin 1988).

Colleges did more than open their doors and adjust the curriculum for this increasingly diverse student body. For adults in particular they began to alter the method of program delivery as well as the method of measuring educational attainment.

The original adjustment in delivery systems emerged in 1870 with the establishment of the elective system at Harvard. This was the result of an innovating president and a democratization movement that swept through American colleges and universities during the same years that Chautauqua and other innovative efforts at noncollegiate adult education were enjoying so much popularity.

With the democratization movement came other innovations. Content was divided into departments. A specific number of credits was established for each

course. Majors and minors were created. One result of these innovations was that a student could interrupt his (or in a few cases, her) course of study, and return to it later when time and or money allowed, perhaps even on a part-time basis. He could even continue at another college because he could transfer his number of earned credits. While this was perhaps an accidental effect, it had a permanent impact on the traditional, full-time degree pattern.

This new flexibility contributed to a tremendous increase in the number of degrees issued by American colleges during the last quarter of the nineteenth century (Houle 1973, 3-5). It was also during these years that special summer sessions, evening colleges, correspondence courses, and extension programs first appeared. The first extension took place in 1816 when a professor from what is now Rutgers offered science lectures to the public (Cross 1976). In 1890 the American Society for the Extension of University Teaching was founded "to attempt to solve the problem of how much of what the University does for their students can be done for people unable to go to the University" (Gratten 1959, 104). The Society is an example

of a formalized institutional arrangement becoming diversified to accomplish its goal of meeting the needs of the nontraditional student of the late 1800s.

While much extension education was neither for credit nor transferable, the contribution from a historical point of view was that a system to deliver education to nontraditional students had been established. By World War I, the idea that colleges and universities could legitimately be involved in providing education to adult students was accepted (Gratten 1955).

Since then, examples of delivery experimentation and attainment-measure innovations include the external degree, challenge exams, credit for experiential learning, credit by portfolio assessment, distance learning (mediated and correspondence), work study, evening and weekend classes, time-shortened programs, liberal transfer policies, summer institutes, and computer-aided instruction, among others (see Houle 1973, Gratten 1955, Commission on Non-Traditional Study 1975, Viano 1983).

WHAT BUSINESS ARE WE IN?

Continual expansion and experimentation to meet the rising needs of the diverse student body raises the question, what business are we in? The best answer is that institutions of higher learning are in the business of surviving, i.e., the business of "skillful negotiation of environmental turbulence..." (Pfnister and Finkelstein 1984, 118). Before additional answers can be given, a distinction needs to be made among the multitude of types of higher education institutions. This paper, at its end, focuses on the less-selective, four-year, Christian organization (see Levine 1984, Glossary).

All of the issues raised so far are relevant to this institutional type since the focus has been more external influences and expansion or extension. Prior to the twentieth century most experimentation took place in the larger public, land-grant schools. But, because "for half a century it has been predicted that the privately supported liberal arts college would soon disappear from the American education scene" (Mayhew 1962, 1), they have needed to do as much experimentation for survival as any other type of institution. They have needed to adapt to

the expectations of twentieth century society. They needed to overcome declining economic support, greater competition in general but specifically from the rising number of junior colleges (Horn 1949). Other threats to survival include secularization of society (Shemky 1967), overly centralized control (Grennan 1969), and their size which makes diversification somewhat difficult (Jonsen 1978).

However, they continue to be viable institutions in the main. They continue because they are flexible and many have strong supportive communities. They innovate. They adjust. They manage adversity.

Those who have survived and even flourished are most likely those which have bridged the gap between their past and their current needs. To some extent they recognized that postsecondary education, at some point in this century, began to "...be seen as an investment made by modern society with the aim of increasing economic production" (Havinghurst and Neugarten 1962, 267). Or, they recognized that they were ideal meeting points for initial and continuing education (Roderick and Stephens 1979). Or, perhaps they began to see the relevance of management theory to their operation (Dressel 1987). One

reason management theory is relevant is because today's students, particularly adult students, question the product they are buying; adult students see themselves as consumer (Hartnagel 1988).

The relevance of management theory to private liberal arts colleges increases in tandem with awareness by adults of the many options for postsecondary education available to them in modern America. This theory is examined below.

GUIDING ORGANIZATIONAL AND INDIVIDUAL CHANGE: A CONCEPTUAL FRAMEWORK BASED IN A REVIEW OF SELECTED LITERATURE

INTRODUCTION: The literature discussed below was selected from the vast amount of writing on guiding change. Selections are intended to 1) provide a general summary of various conceptual approaches to the reform process; 2. identify keys to reform; and 3) isolate problems for reform.

The term reform is used throughout to include the reformation of goals, attitudes, resource allocation, and structure of activities so they "fit" better with the present expectations of society. It is meant to subsume the change models based in research, development, and

diffusion; social interaction; problem-solving; political behaviors and linkages; and local adaptation (Nordvall 1987). The specific objective is to build a framework which can guide the adjustment of academic delivery systems so they fulfill the mission of a college as well as meet the needs of adult students.

The literature appears to be based on two assumptions. The first is that organizations are increasingly complex. Complexity is characterized by numerosity, specialization and diversity, and interdependence (Miller 1972, 45). The second assumption is that change can be brought about in an organization by self-conscious analysis and intervention. These assumptions are not questioned here; they are identified so that their limitations will be considered (see Ehrenfeld 1979).

The presence of these assumptions can be observed in the historical development of the ideas presented in the literature. A pattern can be traced over time. Initially, the concepts and techniques discussed were based in a simple belief that accurate, rational, objective analysis would be adequate for facilitating change. However, it

appears these approaches did not account for the complexity of an organization, i.e., other factors besides information and a plan were necessary to succeed at reform. Therefore, literature began to appear which focused on irrational, social-interaction characteristics of organizations. Eventually, this approach too did not suffice. It was too narrow. Literature now includes attention to local adaptive strategies which suggest each organization, each environment, each situation--at least the relationship between these three entities--is unique. The organization is considered to be more complex than ever, while a reliance on the power of individuals to affect change still underlies the latest approaches to reform.

Before a framework based on process, keys, and problems of reform is built, the selected literature is presented below. Three categories are suggested: rational, irrational, and individual approaches to change.

RATIONAL CHANGE: Rational change is logical change. It pursues a linear approach to analysis. Higher education administrators first used this approach in the 1880s when they began to be fund raisers, managers, organizers, and

consolidators (Veblen, 1954). Veblen's concern that colleges and universities would continue to mimic business practices has been borne out.

In spite of accepted distinctions between business organizations and higher education operations (Chaffee 1985, 136), application of concepts and techniques developed in private business settings to the management of higher education institutions has become firmly established as a viable means of guiding planned change.

The dominant means is known as strategizing. This fundamental technique refers to "...the efforts of persons in any organization to see their enterprise as whole, to envision the relation between the enterprise and external social, economic, and political forces, and to make decisions that create the best future for the enterprise in a changing and turbulent environment (Myran 1983, 9). Although different approaches to its use are readily identified, this fundamental concept is accepted as being important to organizations (Peterson 1971; Maciarello and Enteman 1974; Lahti 1975; Lee and Gilmore 1977; Anderson 1977; Wilson 1981; Myran 1983; Kotler and Murphy 1981; Chaffee 1985; Kotler 1985; Mossler 1987; Simerly and Associates 1987).

This concept is accepted because organizations exist to coordinate the action of many toward results that would not be realized by individuals acting alone (Brunsson 1985, 4), therefore a means of coordinated activity is essential. Strategizing supplies the means. It acknowledges the inseparability of the organization and the environment in which it operates (Chaffee 1985, 139). The process requires advance planning, resources necessary for implementation, and an alertness for modification. This is known as strategic planning.

Strategic planning is based in a generic process of change. Logic and insight are used to identify the preferred step-by-step procedure for bringing about change. This rational process of reform can be described by identifying eight stages:

1. Establish need
2. Discuss among constituents
3. Collect data to inform planning
4. Consider alternatives
5. Select preferred outcome
6. Create action plan
7. Implement
8. Evaluate.

(Although vocabulary varies, see Lippit, Watson and Westerly 1958; Bennis 1969; Lee and Gilmore 1977; Pollay, Taylor and Thompson 1976).

A means by which steps 1, 3, and 4 are informed is called environmental scanning. Higher education is considered an "open system." As such, proper inducements for potential students to enroll in a particular school must exist. Scanning the six external environments, demographic, economic, political, organizational, technological, and social (Jonsen 1986), is necessary to determine what forces vie against or induce enrollments (see Green and Levine 1985; Harten and Boyer 1985; Hearn and Heydinger 1985; Callen 1986).

The use of rational management theory, including scanning the environment, leads to conscious design of strategies to meet the needs of the consumer, in this case, the student. This is marketing, or "the effective management by an institution of its exchange relations with its various markets and publics" (Kotler and Fox 1985, xiii). A school should determine its comparative advantage and go after the appropriate market niche (Balderston 1981). This logic had led institutions of higher education

to have a consumer orientation (Rhoades 1987). The management of enrollments now permeates higher education (Armstrong and Nunley 1981; Hossler 1987; Weiler 1980).

Information gained through logical and rational assessment of resources, policies, and the external environment is extremely important. However, it is not all that is needed to facilitate reform. It does not take into account how the information will be processed by idiosyncratic individuals who constitute the organization, i.e., the internal environment.

IRRATIONAL ASPECTS OF CHANGE: The business world has discovered that strategic planning doesn't go far enough. It attends too little to organizational ideologies, i.e., shared perceptions and interests based in experience and history (Brunsson 1985, 28). The latest models see strategic change as a more complex socio-dynamic process that includes psychological, political, and implementation factors (Chaffee 1985, 134). These are the factors not adequately attended to by strategic planning.

Institutional acceptance of new direction must be facilitated by communication, trust, participation in

decision making, reduction of tension and conflict within and between groups (McDade 1987). It has been found "that meaningful, substantive planning occurred more often when administrators did not dominate the process and when less conflict among faculty members was evident" (Adams, Kellogg and Schroeder 1976, 76).

Understanding and attending to this internal environment--the "corporate culture"--is essential. To be effective, planners need to understand that a "cohesion of values, myths, heroes and symbols" exist and they "mean a great deal to the people who work with them" (Deal and Kennedy 1982, 4). The basic strategy is to examine how decisions are made among the separate groups. Participitative decision making has proven to be an effective means of facilitating "cultural" change (Likert 1967; Polley, Taylor and Thompson 1976; Smith 1980; Floyd 1985; Harten and Boyer 1985).

If <u>rational</u> decisions are intended to generate appropriate and successful actions, then attention to some <u>irrational</u> concerns is important: 1) the type of expectations that are in place (if an individual acts, he or she wants the whole organization to act); 2) the degree of motivation present (who desires to contribute); and 3)

how strong is the shared commitment to either the status quo or the acceptance of the new idea (Brunnson 1985).

Although the literature on irrational aspects of organizations expands the scope of understanding the dynamics of organizational change, it, like the ideas expressed in the rational change literature, is not complete. It does not address how to cause change at the individual person level. To get to this level, learning theory needs to be examined.

INDIVIDUAL CHANGE: Allowance for human volition is most important for planners (Benne 1965). Choices and resulting action are a consequence of the habitual perceptions adults have learned on which to rely. Individuals view and interpret environments via habitual meaning-making paradigms (Hearn and Heydinger 1985). To state the obvious, learning is necessary for change (Conrad and Pratt 1985). Basic commitments in an individual's life result from a previous analysis of a particular environmental dynamic; conclusions are drawn, transfer of meaning is made, and behavior is thus guided. There is a natural resistance to change these commitments as long as they

serve the holder well (Knowles 1978). An individual must experience a need prior to being willing to adjust existing cognitive schemata. Tough (1982) recommends that if an individual is to change, it is best to focus on 1) improving the competencies of the individual; 2) increasing the information-base for the individual; 3) widening resources and opportunities for the individual; and 4) educating the individual about the process of change.

This alone is not enough, however. An individual needs to want to learn for change to occur. A plethora of research on learning has established the principle that learning is a mediated process, i.e., learning is not deposited in the learner, rather it is constructed by the learner. The construction depends upon the individual's cognitive structure and her or his perceived purpose of the exercise (Gregoric 1982; Wittrock 1978; Chickering and Associates 1981; Glaser 1982; Sherman 1985; Levinson 1986; Posner et al. 1982; Nichols and Gamson 1984; Perry 1970; Novak 1984).

An adequate amount of attention to the particular individuals involved in change does not occur in the literature on planned change (Peck 1984). Recognition of

the role of learning theory is all but missing. This gap is interesting for at least two reasons. First, one would think that as higher educationists apply change theory to their organizations, the relevance of learning theory would be obvious since it informs the very product they produce. Second, there is a good deal of literature that focuses on the need for each individual organization to adapt without this same principle being applied to individual people. A discussion of the organizational adaptation literature follows.

ORGANIZATIONAL ADAPTATION: Local adaptation by schools needs to occur independent of which of the three approaches is used to lead the organization through the initial phases of the change process. This adaptation should be in place before the action plan is created with accompanying strategies for implementation and evaluation (Lindquist 1978; Porter, Zemsky and Oedel 1979; Bean and Kuhn 1984; Cannon and Lonsdale 1987). Each school shapes its own future (Pfnister and Feinberger 1984).

The concept of organizational adaptation is not the same as planned change in that it encompasses an assessment

of the ecology of the particular environment of which an individual organization is part. Organizational adaptation suggests a biological approach to problem solving. For example, "forms of life" (programs) die out because the environment has changed. The organization is encouraged to allow characteristics to evolve that are most compatible to their particular environment (Cameron 1984).

This adaptive strategy should be self-conscious. It should employ the ecological approach as well as a life-cycle approach, a strategic choice approach, and a symbolic action approach. The life-cycle approach requires a self-conscious development of organizational characteristics appropriate to the coming age. The strategic choice approach means the use of self-selected approaches chosen from an array for survival. The symbolic action approach requires first an awareness of shared, internal definitions of reality and the conscious manipulation of rituals to cause a redefinition (Cameron 1984).

The model of Organizational Adaptation, along with the previous three models- Rational, Irrational, and Individual models of change- will be combined to create part of a conceptual framework. The stages of the change process

will become another part. Two parts remain to be discussed. They are the keys to and the problems for reform. They are developed below.

CONCEPTUAL FRAMEWORK FOR GUIDING CHANGE: The information presented above can be applied to the adjustment of delivery systems for adults in private liberal arts colleges. The aspects of academic programming that need to be changed to accomplish this goal are discussed below. First, however, a conceptual framework for organizational change is presented.

The framework an integrative model. It incorporates aspects of the four change models presented above as they relate to the process, the keys, and the problems of organizational change. The framework is based on the assumption that change is a dynamic process that is not linear but cyclical (Bergquist and Armstrong 1986). While the dynamism is difficult to display in the framework, it must be kept in mind.

The framework suggests that each of the four models, Rational, Irrational, Individual, and Adaptive are more or less relevant at particular stages of the change process.

FRAMEWORK FOR CHANGE

REFORM PROCESS STAGES	RATIONAL MODEL (RESEARCH/DEVELOPMENT DIFFUSION)	IRRATIONAL MODEL (POLITICAL/LINKAGES SOCIAL-INTERACTION)	INDIVIDUAL MODEL (DECISION-MAKING PROBLEM-SOLVING LEARNING THEORY)	ADAPTIVE MODEL (ECOLOGICAL LIFE-STAGE STRATEGIC CHOICE SYMBOLIC ACTION)	KEYS to REFORM	PROBLEMS FOR REFORM
ESTABLISH NEED						
DISCUSS AMONG CONSTITUENTS					CLARITY of GOALS	INERTIA
COLLECT DATA					RESOURCES	ORGANIZATIONAL STRUCTURE
CONSIDER ALTERNATIVES						
SELECT PREFERRED OUTCOMES					ADVOCACY DISSATISFACTION	
CREATE ACTION PLAN						NONSUPPORT
IMPLEMENT					OPENNESS of SYSTEM LINKAGES	INERTIA
EVALUATE					REWARDS	

——— fully operative
- - - - - - partially operative
═══ domineering model

This is also true for the keys and problems for reform. It is the planning team or change agents' responsibility to start-up, cease and control the correct approach at the appropriate stage of the process.

The Rational model is best employed during the beginning, middle, and end of the change process. Stages where it is least appropriate are during the development of an Action Plan and the Implementation stage. The Irrational model is the most active. It should be in operation throughout (with the exception of the first step, Establish Need, and to a lesser degree during the Data Collection stage). Operation of the Individual model is most important during the latest stages, the Action Plan, Implementation, and Evaluation segments. Although it is important to consider when identifying alternatives and, to a minor degree, during the Initial Discussion phase. The Adaptive model plays a dominant role during the Action Plan development and the Implementation stage. It also needs to be taken into account as a recommendation is made.

Simultaneously, those responsible for a particular reform process need to be aware of their organization's strengths and weaknesses as isolated by keys to and

problems for reform appearing in the framework. These organizational characteristics have been gleaned from the literature discussed above. Principally, they were identified from the work of Guskin and Bassis (1985); Lindquist (1974); deW. Bolman (1970); Bobbitt and Behling (1981); Davis et al. (1982); Hefferlin (1969).

During the Initial Discussion phase it is important that Clarity of Goals exists. Also, it is during this early stage in the change process that Inertia can be devastating. At stage three, Data Collection, consideration of Resources should begin. Next, when Consideration of Alternatives is underway, the Structure of the organization must be considered. During the Recommendation stage, Advocacy by the leadership and a degree of worker Dissatisfaction are key to realizing progress. A problem can arise if Support for the Action Plan is not forthcoming. To successfully Implement the plan, Linkages and Openness of System are essential, while being sure any Inertia has been overcome. Finally, the Evaluation system must contain Rewards.

Putting the framework into action and managing it throughout the entire process is a difficult task.

Balancing and controlling these sometimes opposing approaches requires Janusian thinking. Rothenburg (1979) describes this as "two or more opposites or antitheses are conceived simultaneously, either as existing side by side, or as equally operative, valid, or true" (55). This degree of complexity is needed since the process of change is so complex.

CHANGING AN ACADEMIC DELIVERY SYSTEM FOR ADULTS

PREPARING FOR CHANGE: The first stage of the change process is to establish the need for reform. An observant college administrator will become aware of the demographic, social, and technological changes discussed earlier. If this administrator manages one of the less-selective liberal arts college, these trends may cause his or her college to be at risk (Breneman 1983; Centra 1980).

The establishment of need, in this case, is based in the aging American population and increasing part-time enrollment patterns. The strategy to verify this need is to conduct an enrollment management analysis. This

"involves the planning, coordinating, and integrating of traditionally independent collegiate activities associated with recruiting, enrolling, and retaining all students" (Smith 1988, Introduction). Innovations is this area are discussed by Meech (1970); Armstrong and Nunley (1981); and Weiler (1980). This strategy can be guided by a set of questions such as: Based upon past enrollment data, what adult enrollment trends can we anticipate in the future? What options are the primary competitors for our adult market? Are there additional sources of students similar to the ones we already serve? What marketing could we do to attract additional students? What is our current adult student attrition rate? Can we disaggregate our adult students into persisters and withdrawers? And so on (Hossler 1988, 4).

Once answers to these and related questions are determined (this involves step two, Discussion, and step three, Data-Collection, of the change process) an organizational response is needed. This response will require a new or continuing realignment of college resources to be better positioned to respond appropriately to the adult student market. Although realignment could be

directed in an of at least 50 ways (see Appendix B in Cross and Valley 1974: examples include types of degrees, length and location of program, organizational structure, admission restrictions, curricular options, learning options, financing enrollments, child care, recruitment, and so on), it is most important to determine the compatibility of these responses with the college's mission, orientation, staff make-up, and degree of flexibility.

Most Christian colleges are, or were originally, oriented toward spiritual development via learning in the liberal arts. This goal can be maintained in spite of the diversification of the student body and the consumer's need for career-related education. A career can be defined as a "course of events that constitute a life" (O'Toole 1977, 138). With this as a definition, education in the liberal arts can be considered vocational education. If the general mission of the college is to influence individuals to live the best life they can while participating in a secular society, the adult student who is working, raising a family, participating in a democratic government may be regarded as a prime target for influence.

The teaching and administrative staff in most Christian colleges today is heterogeneous enough in life-style and belief systems that they should be able to relate to fellow diverse students. However, they need to want to: Are they willing to work with older than traditionally aged students? The relationships that develop with an adult student through classroom instruction and advising differ from those staff and faculty develop with a young, less mature adult. Are they flexible enough in their orientation to work with the nontraditional learner?

In this context of managing change, the size of most Christian liberal arts colleges is a double-edged sword. Because a school is small, it can better adapt. It is less complex, but also less resilient. It has limited excesses which make misdirection more costly.

These four characteristics need consideration as step four in the change process, Consider Alternatives, is conducted. The college resources need to be realigned in a manner that allows for fluidity and temporary structures. Assignment of resources, including staff and faculty, should allow for flexibility since continual, or at least periodic, [illegible] might lead to additional realignment.

WHY CHANGE? The typical private, residential, liberal arts college was not designed to meet the needs of working, mature adults. The hours of operation, the admission requirements, the centralized campus structure--to mention a few structural characteristics--can all be barriers to a college being able to induce this population to enroll. Barriers can be situational, dispositional, and institutional (Cross 1981; Carp, Peterson and Roelfs 1974; Heffernan 1981). Campus operations generally have an age bias (Peterson 1981). Smith and Abent (1988) report "that adults perceived they were treated negatively...specifically in the classroom" (11).

A good amount of literature exists which identifies the characteristics of adult learners that mitigates against the pedagogy of most traditional classrooms. This literature addresses adult learning styles and personality (Loesch and Foley 1988; Fourier 1984; Corno and Snow 1986, Epstein and Terraspulsky 1986; Marton and Saljo 1976, Claxton and Murrell 1987); the maturity of the learner (Kolb 1981; Heath 1977; Overstreet 1949; Kuhlen 1956; Knights and McDonald 1979); selected perceptions and approaches to learning (Beber and Carrea 1988; Garland

1985; Entwistle 1981); motivation (Wolfgang 1981; Morstain and Smart 1977; Clayton and Smith 1987; Clarke 1980).

CHANGE WHAT? The characteristics of adult undergraduates suggest that many barriers may be in their way to a four-year degree. This paper is concerned with the way learning is delivered; it is most concerned with the experience the adult has after she or he enrolls in a college; and further it is concerned with the fit between the learning environment and the adult learner's needs.

A delivery system is part of a learning plan. A learning plan, however, is a larger construct. While it is concerned with values, curriculum development, assessment of entry skills, and evaluation of learning (Posner and Rudnitsky 1986, 97), a delivery system includes only time, space, resources, organization, and procedures (Bergquist, Gould and Greenberg 1981, 5).

Convenience of opportunity is the underpinning quality of alternative delivery models. Alternative delivery models include options which facilitate academic progress. Alternative models include

Contract learning or independent study arranged between a professor and a student

Field-based internship or co-op arrangements

Time shortened credit delivery models

Time shortened degree plans

Innovative scheduling of courses, including evening and weekend classes

Consortia or articulation agreements which allow a student to attend a set of schools knowing that the home institution will fully recognize credit earned

Partnerships with industry in which employers and colleges cooperate for the convenience of the student

Classes offered at off-campus sites for convenience of time and location

Correspondence courses to be completed without attending classes

Mediated instruction including television, radio, and video taped classes.

A delivery system has two basic components: format and technique. Format is "how people are organized for learning" while technique is "a particular teaching approach used within a format" (Apps 1981, 125). The format of an academic delivery system includes concerns about place, time, resources, and student body. Place includes accessibility, size, safety, comfort. Time applies to each session, overall duration, scheduling. Resources include furnishings, instructional equipment. Student body means size, age, life stage, level of educational attainment, learning style.

The technique employed in a particular academic delivery system is determined by establishing the best fit among educational needs, time/space/resource limitations, and preferred instructional styles. Levine (1985) suggests six categories to help with thinking about techniques of delivery: live, mediated, new technologies, independent study, experiential, and libraries (174-203). For each of these categories, there are appropriate techniques.

A well developed theory of instructional technique which encompasses the concern for fit is the Attribute-Treatment Interaction (ATI) theory. It recognizes "the importance of situational influences on student behavior, hence an emphasis on the classroom context and types of classroom tasks" (McKeachie et al. 1986, 9). The ATI approach to teaching allows for consideration of the individual being instructed yet does not defer to his or her perception of what would be best. It is a middle ground between instructor-centered and student centered approaches to teaching. It requires that the instructor assess the characteristics present in the learner and to then make adjustments in technique so they become compatible with the learner's proclivities.

Adjustment of an academic delivery system to best fit the needs of adult undergraduates requires that place, time, and technique might need to be changed. If interested, an institution needs to conduct market research with its current adult population to determine why these individuals were induced to enroll. It should also survey its local competitors to determine what they are doing to serve which segments of the adult market. A school may discover an underserved niche. It is not necessary, in this author's opinion, to strike out on a radically different course of institutional action. Incremental adjustments in the traditional liberal arts curriculum content and recruitment may suffice if the academic product is delivered to the adult student consumer in a convenient place and time and if the content is presented via a technique compatible with the mature learner. These changes require planning and learning and continual review to be as sure as possible the intended outcome is being realized.

CONCLUSION

An overview of the changing demographics of American higher education enrollments has been provided along with some historical orientation regarding the higher education community's response to similar diversification of the undergraduate student body in the past. A conceptual framework built from an analysis of selected literature on organizational change was then suggested to guide the private liberal arts college as it goes about adjusting its resource allocation to better fit the particular needs of adult students. If it wishes to adjust its academic delivery system in an effort to induce adults to enroll, it should attend to the place, time, and instructional technique of its class offerings. This theoretical approach is now applied to an actual Christian, urban, four-year, less selective, liberal arts college.

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